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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,775	12/10/2003	Nigel Malcolm Lindner	F3342(C)	6982
201 7590 06/22/2007 UNILEVER INTELLECTUAL PROPERTY GROUP 700 SYLVAN AVENUE, BLDG C2 SOUTH ENGLEWOOD CLIFFS, NJ 07632-3100			EXAMINER CHAWLA, JYOTI	
			ART UNIT 1761	PAPER NUMBER
			MAIL DATE 06/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/732,775	Applicant(s) LINDNER ET AL.	
	Examiner Jyoti Chawla	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/6/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

NOTE: The examiner of the current application has changed. Please address all future correspondence to Jyoti Chawla, Art unit 1761.

Applicant's amendment filed on November 21, 2006 has been entered. Claim 1 has been amended and claims 1-12 are pending in the application and are examined in the present office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite for the recitation of "average volume of less than 1ml and a minimum average volume of at least 0.02 ml" as it is unclear as to what is the average volume of the ice confection being claims instantly. The claim recites minimum average volume of at least 0.02ml, i.e., the least volume that the confection can have is 0.02ml, which is less than 1 ml. Then is 0.02 the average volume or is it 0.03 or 0.07 or is it 0.9999ml which are all less than 1 ml. It is unclear as to what would be considered as the average volume for the ice confection as recited. It is not clear whether the applicant is claiming an average volume range of 0.02 ml to 0.99 ml or any other range in between. Clarification and/or correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1761

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.

Ascertaining the differences between the prior art and the claims at issue.

Resolving the level of ordinary skill in the pertinent art.

Considering objective evidence present in the application indicating obviousness or nonobviousness.

(A) Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenn et al (US 2001/0048962) in view of Jones (WO 96/29896).

Regarding claims 1 and 4, Fenn et al., hereinafter Fenn, teaches a method of making frozen food product, such as, water ices, sherbet, sorbet, ice milk, etc (Publication paragraphs [0050] and [0045, lines 2-3]) comprising discrete elements of the water ice containing ice structuring protein (ISP) or antifreeze peptide (AFP) (Publication paragraphs [0052]). Fenn teaches that the level of solids more than 4 wt% and up to 70% (Publication [0051]), which includes the solids content of at least 6%, as instantly claimed.

The reference also teaches that ISP/AFP acts in many ways to modify the frozen food product

- AFP lowers the freezing temperature of the solution (Publication [0005]).
- AFP has significant ice-recrystallization inhibition properties, i.e., ice crystal growth suppression (Publication [0006]), i.e., agitation is not required to make a smooth frozen product.
- AFP has the ability to influence the shape of ice crystals (Publication [0007]).
- AFP also inhibits the activity of ice nucleating substances (Publication [0008]).

The reference also teaches that ISP/AFP makes it possible to formulate frozen food products (ice-creams and water ices) that are relatively hard and brittle on one hand

Art Unit: 1761

with improved ice-recrystallization properties on the other, i.e., the water ice or ice cream can be frozen in a static freezer. Since the AFP/ISP retards the growth of ice crystals, it would also retard the adjacent frozen confections or confection pieces to stick to one another as instantly claimed. Further ISP/AFP helps in retaining the desirable shape or size of the frozen food product and the ice crystals in the food would not increase in size significantly and thus there is no deterioration in the texture of the frozen food product upon keeping.

Fenn teaches that when ISP/AFP is added to the food product then the average ice crystal size of less than 20 μm , and preferably from 5 to 15 μm (Publication [0039]) which makes the size of the ice crystal such that the frozen product remains fluid and that the AFP/ISP used is the one that has good ice-recrystallization properties. The reference teaches of frozen confections such as water ices and sherbert or sorbet as discussed above, however the reference does not teach the average size or volume of water ice particles as instantly claimed. However, the crystal size of less than 20 μm , and preferably from 5 to 15 μm (Publication [0039]), as taught by Fenn is small enough that frozen ice confections can be made having an average volume of less than 1 ml and minimum average volume of at least 0.02 ml and 0.5 ml as instantly claimed. Also, freezing ice confections in sizes as claimed instantly has been known in the art (WO 96/29896), where Jones teaches of making ice confections in the shape of small beads. Jones teaches of frozen confection spheres or beads that are free flowing when frozen. The frozen confection as taught by Jones can be made using a dropper assembly with orifice of size 0.03125 inches, i.e., 0.8 mm and the droplets of the confection are frozen quickly so as to form beads or spheres of frozen confection. Based on the viscosity of the liquid confection, the beads of the frozen confection formed can be made smaller or larger, however, it was known to make discrete ice confections at the time of the invention as taught by Jones.

Regarding the size of the frozen confection pieces or particles or spheres, it is noted that since the composition of the ice confection with solids content in the range claimed was known, the confection composition also included the same type of ISP /AFP in the recited amount was also known at the time of the invention, therefore, the step of

Art Unit: 1761

freezing the ice confection as to form a discrete pieces of the frozen confection does not provide patentable distinction to the claims, absent any clear and convincing evidence and arguments to the contrary.

Regarding claims 2-3, Fenn teaches of a frozen food product comprising of ISP /AFP. The reference also teaches frozen confections that have texture contrast. The frozen confections taught by Fenn also teach discrete elements in the confection, e.g., core of one ice confection can be coated with composition containing ISP/AFP to create layered confection (Publication [0052-0064]). Thus, the reference does teach of discrete water ice confections that contact other iced confections, as instantly claimed.

Regarding claim 5, Fenn teaches that the aeration of the frozen product is optional (Publication [0041-0042]). Thus the reference teaches that the frozen ice confections comprising ISP/AFP can be made without aeration step, i.e., water ice is unaerated as is instantly claimed.

Regarding claim 6, Fenn teaches that the level of solids more than 4 wt% and up to 70% (Publication [0051]), which includes the solids content of at least 10%, as instantly claimed.

Regarding claims 7-8, Fenn teaches that the preferred ISP/AFP is derived from type III fish and most preferred HPLC-12 (Publication [0038]), as is instantly claimed.

Regarding claim 9, Fenn teaches that the preferred level of ISP/ AFP in the frozen confections, such as ice creams and water ice is in the range of 0.0001 to 0.5wt% (Publication [0045]), which includes the range of at least 0.0005wt%, as instantly claimed.

Regarding claim 10, Fenn teaches that the frozen confection packaged in containers (Publication [0044]) as instantly claimed.

Art Unit: 1761

Regarding claims 11 and 12, Fenn teaches that the pack size is from 10g to 5000g for single or multiple portions (Publication [0044]) and that the frozen confection can be made and frozen in a shop or home freezer (Publication [0043]), where the frozen confection shop or the shelf in a shop that sells the frozen confection would comprise the retail unit. Regarding the product in each container being different, it would be obvious to one of ordinary skill in the art at the time of the invention that each container filled with frozen confection, where the confection comprises of discrete water ice confections (particles, spheres etc) will have different product in each container due to the differences in the number of discrete frozen confections in a package, the flavor(s) of frozen confection the size of the packaging container, the shape of the packaging container, the packaging conditions etc., as instantly claimed absent any clear and convincing evidence and arguments to the contrary.

(B) Rejection of claims 1-6 and 9-12 made in the previous office action under 35 U.S.C. 102(b) as being anticipated by Lillford et al (US 6162789) has been withdrawn in light of applicant's amendments.

Response to Arguments

Applicant's arguments filed November 21, 2006 have been fully considered but they are not persuasive.

Applicant's remarks address the details of the invention (Remarks, page 5). Applicants argue that Fenn teaches of an average crystal size of 5-15 microns which does not meet the claimed invention as the average particle size of the frozen confection according to the invention is 0.02ml (Remarks, Page 6). Applicant is referred to the rejection above where Fenn teaches of a ice crystal size of less than 20 μm , and preferably from 5 to 15 μm (Publication [0039]). The reference further teaches that the ISP /AFP, as taught by Fenn, limits the increase in the size of the ice crystal such that the frozen product remains fluid. Regarding the size of the particle, it would be obvious

Art Unit: 1761

to one of ordinary skill in the art at the time of the invention that if the frozen confection is made by using the same type of ISP/AFP, and the frozen confection has the solid content in the range recited by the applicant, then the frozen confection as taught by the reference will form discrete particles or confections having the volume in the recited range of the applicant. Regarding the argument the applicant is reminded that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Furthermore, the applicant is referred to the original disclosure Page 5, lines 8-20, where the good ice-crystal recrystallization properties are defined for the frozen confection with ISP/AFP. The disclosure states crystal size of less than 20 μm , and preferably from 5 to 15 μm (Page 5, lines 17-19) which is the same as taught by Fenn reference. Thus if the two compositions have the same solids content, same type of ice structuring protein (Fish derived Type III ISP/AFP HPLC-12) that forms ice crystals in the same size range, then it would have been obvious to one of ordinary skill in the art at the time of the invention that the composition as taught by Fenn will form discrete ice confections that are in contact with each other and are able to move relative to each other as instantly claimed. The size in which the individual confections are frozen is a matter of choice and it was well known to freeze confections in different shapes and sizes as desired and thus would also be well within the purview of one of ordinary skill in the art to make the determination of size of individual frozen confections.

Therefore, Applicant's remarks have been fully considered but have not been found persuasive and the rejections are maintained for the reasons of record.

Conclusion


THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

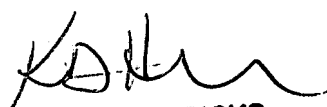
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jyoti Chawla
Examiner
Art Unit 1761


KEITH HENDRICKS
PRIMARY EXAMINER